OSPREY FALL MIGRATION AT THE NINIGRET BARRIER BEACH CONSERVATION AREA, RHODE ISLAND

by
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Introduction

The Osprey (*Pandion haliaetus carolinensis*) has been included on the Audubon Society Blue List (Arbib 1971) because there has been a drastic decline in its populations in northeastern North America since the 1970s (Emerson and Davenport 1963, Ames and Mersereau 1964, Schmid 1966, Dunstan 1970, and others). It is thus important to document for comparative purposes areas that are frequented by Ospreys. Secondly, these data, including observations on behavior, can be used as an indicator of environmental changes that may occur, or may serve to aid in the management of the area for the species.

This paper reports on Osprey migrations at the Ninigret Barrier Beach Conservation Area, Charlestown, Rhode Island. We suggest herein a means to increase Osprey use of the area.

Methods

During the fall of 1975, 1976, and 1977, a total of 455 hours of observations were made of migrating Ospreys. The area of observation is the longest (2 km long) of 27 Rhode Island barrier beaches. The beach is bordered by Charlestown Pond and Block Island Sound. Charlestown Pond (1,711 acres) is the largest salt pond in the state (Stolgitis et al. 1976).

Ospreys that passed an observation point in a southerly or southwesterly direction were counted; individuals that were seen flying in the opposite direction were subtracted. Observations were recorded in one-hour segments, and behavioral notes were made when birds appeared to be actively hunting over the pond or the sound.

Results

One hundred and thirty-three Ospreys were recorded, an average of 3.1 birds per day. The number of birds was recorded each day (table 1) by hourly intervals (table 2). Wind direction was also noted although these data are not presented here.

Seventy-five percent of the birds were hunting as they passed along the barrier beach. A minimum of 18 birds (13.5%) hunted over Charlestown Pond to such an extent that they repeatedly flew back and forth past the observation point. A maximum of five birds was noted hunting over the pond simultaneously. One individual with distinctive white primaries remained in the area for five days.

Discussion

The Ninigret Barrier Beach Conservation Area is frequented by a considerable number of Ospreys during fall migration. A substantial percentage of these Ospreys hunt

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Table 1. Number of Ospreys Observed at the Ninigret Barrier Beach Conservation Area during Fall Migration

	September												October											
	19	20	21	22	23	24	25	26	27	28	29	30	1	2	3	4	5	6	7	8	9	10	11	12
1975	-*	–	–	–	–	–	–	–	4	5	2	2	2	1	0	7	5	3	6	4	1	1	1	1
1976	6	5	2	8	3	5	4	1	1	5	1	6	0	0	3	1	1	0	0	0	–	–	–	–
1977	–	–	–	–	–	–	–	–	–	–	–	–	–	0	14	10	4	1	3	2	–	–	–	–

*No observer present.

along the beach. The data, however, do not indicate the potential importance of the area. The utilization of the area by migrating Ospreys in itself is indicative of the importance of the existing habitat to the species. However, since this area now lacks suitable perches (poles, snags, etc.), the full potential for Osprey utilization is probably not realized. The low number of Ospreys observed during the first and last hour of daylight may indicate that few roosting sites are available in the immediate vicinity. The erection of perching sites along the edge of the pond might substantially increase utilization by Ospreys. Providing perching and roosting snags, as well as nesting platforms, has been recommended as a vital part of Osprey management (Zarn 1974). In addition, since Osprey populations have shown a recent upward trend in Rhode Island (Myers pers. comm.), proper management might increase the possibility of Ospreys' nesting in the area in the future.

Table 2. Mean Number of Ospreys Observed During One-Hour Intervals*

Time interval (EDT)	No. of samples	Mean no. of birds
0600–0659	34	.12
0700–0759	40	.42
0800–0759	41	.20
0900–0959	42	.62
1000–1059	42	.31
1100–1159	42	.43
1200–1259	42	.30
1300–1359	43	.26
1400–1459	42	.21
1500–1559	39	.26
1600–1659	35	.31
1700–1759	28	.04

*Data from three years pooled.

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